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REVIEWERS GUIDE

PART A: ***Editorial Office Only***

SECTION I

MANUSCRIPT REVIEW

Title: Transforming Education Through Artificial Intelligence: Bridging Theoretical AI Models with Scalable Applications for Enhanced Learning Outcomes

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GENERAL COMMENTS

This manuscript addresses a timely and relevant topic regarding the integration of artificial intelligence in education. The authors demonstrate enthusiasm for the subject matter and provide a comprehensive overview of AI applications in educational settings. The paper successfully highlights both the opportunities and challenges associated with AI implementation, particularly within the Nigerian context, which adds valuable perspective to the global discourse on educational technology.

The structure is logical, moving from introduction through methodology to results and recommendations. However, the paper would benefit from clearer focus and more rigorous empirical analysis. The work reads more as a comprehensive literature review than as a research study presenting novel findings or applications.

Strengths:

- Addresses a highly relevant contemporary issue in education
- Provides balanced discussion of benefits and limitations
- Includes theoretical frameworks (Teacher Expertise Theory and Three-Level AI Theory)
- Contextualizes discussion within Nigerian educational landscape

- Accessible writing style suitable for diverse audiences

ABSTRACT

The abstract provides a reasonable overview of the paper's scope; however, it could be more concise and better structured.

Suggestions:

• The abstract mentions examining “Jasper AI and Gemini AI,” but the paper focuses more on general AI applications than an in-depth analysis of these specific tools.
• Clarify what “mathematical principles behind AI” and “model” specifically refer to.
• Add specific findings or conclusions reached by the study.

Note: No keywords provided

Grammatical Corrections:

→ "A significant portion is dedicated to the examination of Jasper AI and Gemini AI, one of the most prominent AI tools" (Inconsistent - is it two tools or one? Should be: "...Gemini AI, two of the most prominent AI tools" or focus on one)

INTRODUCTION

The introduction effectively establishes the importance of AI in education and sets up the paper's scope. It successfully contextualizes the discussion within contemporary educational challenges and opportunities.

Strengths:

- Engaging opening that connects education to success
- Good use of current examples (Khan Academy's Khanmigo, Duolingo)
- Effectively introduces the concept of AIED
- Mentions relevant statistics (86% of educators advocating for AI integration)

Areas for Enhancement:

- The research questions or objectives could be stated more explicitly

Grammatical Corrections:

→ "Education plays a crucial role in shaping lives, and a strong educational foundation is key to achieving success." (Consider: "...is key to success" for conciseness)

METHODOLOGY

This section presents challenges, as the methodology described doesn't align well with a traditional empirical research study. The approach appears to be a conceptual/literature review rather than primary research.

Concerns:

- The "mixed-methods approach" claim is not fully substantiated - the study appears to be purely qualitative/conceptual
- Case studies of Jasper AI and Gemini AI are mentioned but not actually presented in the paper
- The mathematical model referenced is not clearly detailed
- No description of search strategies, databases used, or selection criteria for literature
- Missing details about how case studies were analyzed

Recommendations:

- Consider reframing this as a "conceptual framework" or "systematic literature review" methodology
- If case studies were conducted, present the findings explicitly
- Include systematic review elements: search terms, databases, inclusion/exclusion criteria, number of papers reviewed
- Clarify whether any empirical data collection occurred

Grammatical Corrections:

→ "To complement the literature review, case studies were analyzed to examine specific AI tools like Jasper AI and Gemini AI." (Add specificity: "...to examine the capabilities and educational applications of specific AI tools such as Jasper AI and Gemini AI")

RESULTS AND DISCUSSION

This section is notably brief and does not present concrete research findings. It reads more as a summary conclusion than a results section.

Major Concerns:

- No empirical data, survey results, case study findings, or systematic analysis presented
- The statement "A review of previous studies reveals..." suggests this is more of a literature synthesis than original research
- Missing comparison of different AI implementations, effectiveness measures, or outcome data
- No tables, figures, or data visualization of findings
- Discussion of challenges (ethics, privacy, costs) lacks depth and specific examples

Recommendations:

- If this is conceptual work, merge Results and Discussion into one section titled "Analysis and Discussion"
- Present structured analysis of literature findings using tables or frameworks
- Include comparative analysis of different AI tools or implementations
- Provide specific examples from Nigerian context
- Discuss implications of theoretical frameworks introduced earlier
- Add subsections for different themes emerging from the review

Grammatical Corrections:

→ "This conceptual paper examines the transformative role of artificial intelligence (AI) in the education sector." (If this is conceptual, state this upfront in the abstract and introduction)

REFERENCES

The reference section shows some limitations that should be addressed.

Concerns:

- No references dated 2023,2024 and 2025 despite paper discussing current AI developments
- Several promising AI tools mentioned in text (ChatGPT, Duolingo, Khan Academy) lack primary source citations

Issues:

→ Ramesh: Incomplete citation - needs full bibliographic details..This reference was not cited in your work

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RECOMMENDATIONS SECTION

This section provides useful forward-looking suggestions but could be strengthened.

Suggestions:

- Add specific recommendations for Nigerian educational institutions
- Include recommendations for policymakers, educators, and researchers separately
- Discuss implementation strategies and resource requirements
- Address the gap between theory and practice more explicitly

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RATING ASSESSMENT

Criterion	Rating	Assessment
Originality	3 (Fair)	While the paper addresses an important topic, it primarily synthesizes existing knowledge rather than presenting novel research, original frameworks, or new empirical findings.
Contribution to the Field	2(Good	The Nigerian context adds value, and the integration of theoretical frameworks is useful. However, limited empirical evidence and lack of novel applications reduce the contribution.
Technical Quality	3 (Fair)	The theoretical foundations are presented adequately, but the methodology lacks rigor for a research paper. The absence of empirical data and detailed analysis limits technical quality.
Clarity of Presentation	2 (Good)	The writing is generally accessible and well-organized, though some sections could be more focused. Figures enhance understanding but need better integration with text.
Depth of Research	3 (Fair)	The breadth is good, covering multiple AI applications and theoretical frameworks. However, depth is limited - most topics are covered superficially without detailed analysis or critical evaluation.

DECISION AND RECOMMENDATIONS

Decision: MAJOR REVISION REQUIRED

This manuscript addresses an important and timely topic with genuine enthusiasm and valuable perspectives, particularly regarding AI implementation in Nigerian higher education. However, significant revisions are needed before it can be considered for publication.

Critical Revisions Required:

1. **Clarify Research Type:** Reframe the paper as either:
   - A systematic literature review with proper methodology
   - A conceptual/theoretical framework paper
   - An empirical study (requiring data collection and analysis)
2. **Strengthen Methodology:**
   - Provide detailed description of literature search and selection process
   - Present actual case study analyses if conducted
   - Add empirical component or clearly acknowledge this as conceptual work
3. **Enhance Results Section:**
   - Present structured findings from literature analysis
   - Include data visualization (tables, charts, frameworks)
   - Provide comparative analysis of different AI applications
   - Discuss specific examples from Nigerian context
4. **Expand Literature Base:**
   - Increase references to 25-40 high-quality sources
   - Include recent publications (2023-2024)
   - Add foundational AI education literature
   - Ensure consistent citation formatting
5. **Deepen Analysis:**
   - Move beyond descriptive summary to critical analysis

    - Connect theoretical frameworks more explicitly to practical applications
    - Provide specific recommendations for different stakeholders
    - Address implementation challenges in more detail

Additional Recommendations:

- Consider adding a section on specific AI implementation strategies for resource-constrained environments
- Include discussion of teacher training needs for AI integration
- Address cultural and contextual factors affecting AI adoption in Nigeria
- Provide cost-benefit analysis or framework for decision-making

Positive Aspects to Maintain:

- Balanced discussion of benefits and challenges
- Integration of theoretical frameworks
- Focus on Nigerian context
- Clear organizational structure

Review completed with constructive intent to support the authors' scholarly development and contribution to educational technology research.